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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER				
YAM, STEPHEN K				
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/542,971

Applicant(s)

AKKERMAN ET AL.

Examiner

STEPHEN YAM

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 April 2008.
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1, 3-9 and 11-14 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1, 3-9 and 11-14 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-8508)
Paper No(s)/Mail Date _____
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____

DETAILED ACTION

This action is in response to Amendments and remarks filed on April 29, 2008. Claims 1, 3-9, and 11-14 are currently pending.

Claim Objections

1. Claim 5 is objected to because of the following informalities:

In Claim 5, a period should be added at the end of the claim, pursuant to MPEP 608.01(m).

Appropriate correction is required.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1, 3, 4, 7, and 8 are rejected under 35 U.S.C. 102(b) as being anticipated by Ometz et al. (4605851).

In regard to claim 1, Ometz discloses (fig. 1) a method for inspecting packagings for a liquid product including: setting a packaging (2) into rotation, irradiating (1) the packaging during the rotations with a radiation of a predetermined wavelength (see Col. 7, lines 40-50, Col. 9, lines 59-61), making at least one series of at least two recordings of at least a part of the content of the packaging during rotation, with an image recording device (6) suitable for making recordings at the predetermined wavelength, wherein the packaging is situated in substantially the same rotational position relative to the recording device during successive recordings of the series (see Col. 3, line 68 to Col. 4, line 19, Col. 7, lines 7-16, Col. 8, lines 48-59, Col. 9, lines 6-

15).

In regard to claim 3, Ometz discloses that the successive recordings of the series are made with an intervening time interval of a predetermined duration (column 8, lines 48-59).

In regard to claim 4, Ometz discloses that the rotation speed is varied during the period in which the recordings of a series are made (column 10, lines 5-12).

In regard to claim 7, Ometz discloses comparing the image information from the images of a series to detect the presence of undesired particles in the packaging (column 3, line 68 – column 4, line 19, column 7, lines 7-16, column 8, lines 48-59).

In regard to claim 8, Ometz discloses the image recording device being a camera activated to make a recording signal supplied from outside the camera (column 7, line 67 – column 8, line 35).

4. Claims 1 and 6 are rejected under 35 U.S.C. 102(b) as being anticipated by Manique et al. (5523560).

In regard to claim 1, Manique discloses (fig. 7A) a method for inspecting packagings for a liquid product including: setting a packaging (10) into rotation, irradiating (614) the packaging during the rotations with a radiation of a predetermined wavelength (column 11, lines 29-50), making at least one series of at least two recordings of at least a part of the content of the packaging during rotation, with an image recording device (632) suitable for making recordings at the predetermined wavelength, wherein the packaging is situated in substantially the same rotational position relative to the recording device during successive recordings of the series (column 4, lines 1-28).

In regard to claim 6, Manique discloses that a plurality of series of recordings are made

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wherein recordings of the same rank from different series are made successively (column 4, lines 1-28).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ometz et al. (4605851) as applied to claim 1, and in view of Ishikawa (5072108).

In regard to claim 5, Ometz discloses an inspection method as set forth above. Ometz fails to disclose varying the direction of rotation. However, Ishikawa discloses an inspection system that rotates a packaging in two directions (abstract). It would have been obvious to one of ordinary skill in the art to vary the direction of rotation in Ometz as taught by Ishikawa, in order to more accurately detect foreign particles (abstract).

7. Claims 9 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ometz et al. (4605851) as applied to claim 1, and in view of Katane et al. (2003/0063281).

In regard to claim 9 and 11, Ometz discloses a rotator for rotating the packaging, a radiating means for irradiating the package with radiation of a predetermined wavelength, and an image recording device suitable for making recordings at the predetermined wavelength for making at least one series of at least two recordings of at least a part of the content of the packaging during the rotation (column 8, lines 20-27). Ometz discloses making successive

recordings at the same orientation but remains silent regarding a position-determining means for determining the rotational position of the packaging. Katane discloses (fig. 1) a packaging inspection apparatus with position-determining means (9) (page 2, paragraph 0023). It would have been obvious to one of ordinary skill in the art to incorporate a position-determining means in Ometz as taught by Katane, to more accurately control the rotation of the packaging.

8. Claims 12-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ometz et al. (4605851) as applied to claim 1, and in view of Cronshaw et al. (US 6275063)

In regard to claim 12, Ometz discloses the method in claim 1, according to the appropriate paragraph above. Ometz does not disclose the image recording device positioned at an angle of greater than 90 degrees and less than 180 degrees from the container's axis of rotation or the radiation of the predetermined wavelength contacting the container at an angle greater than 90 degrees and less than 180 degrees from the axis of rotation. Cronshaw et al. teach (see Fig. 1) a similar device with an image recording device (50) positioned at an angle of greater than 90 degrees and less than 180 degrees from a container's (1) axis of rotation. Furthermore, it is well known in the art to position a light source as appropriate, depending on the desired illumination direction, intensity, and profile. It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the image recording device positioned at an angle of greater than 90 degrees and less than 180 degrees from the container's axis of rotation, as taught by Cronshaw et al., and provide the radiation of the predetermined wavelength contacting the container at an angle greater than 90 degrees and less than 180 degrees from the axis of rotation, in the method of Ometz, for an optimal imaging zone and to minimize interference from specular reflections from the bottle, and since it has been held that rearranging parts of an invention

involves only routine skill in the art. *In re Japikse*, 86 USPQ 70.

Response to Arguments

9. Applicant's arguments filed April 29, 2008 have been fully considered but they are not persuasive.

Examiner notes that the rejection of Claim 5 in the prior rejection over 35 U.S.C. § 103(a) by Ometz in view of Ishikawa was inadvertently labeled as Claim 6. This typographical error is corrected in the present Office Action.

Rejection of Claim 1 under 35 U.S.C. § 102(b) by Ometz

Regarding the rejection of Claim 1 by Ometz, Applicant argues that "In Ometz et al., images are taken from different angles of the bottle so that particles in the fluid which are spinning with a different speed than the bottle could be detected" (Applicant's 4/29/2008 response at 8), that "[a]s the images are taken at different time intervals, they are therefore taken at different angles relative to any location on the bottle" (*id.*) and "Ometz therefore teaches away from taking successive recordings of the series with the packaging in *the same rotational position* relative to the recording device, as recited in claim 1." (*Id.*)

Examiner asserts that Ometz discloses the successive images taken in the same rotational position. Ometz recites:

At an initial time T_0 , determined by a microprocessor 12 constituting a general control member of the device, and transmitted by a synchronization line 13 to a member 14 for controlling and shaping the signals useful for the integrated circuit of surface 6, the assembly of the cells of this latter point by point analysis, the image of the apparent surface of bottles 2 ...

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At a subsequent instant T_1 , the same surface is again analyzed and the light signal received by each elementary cell is again memorized at 11, in the same way, to constitute a second image.

The two images obtained at instants T_0 and T_1 are then compared point by point by a subtractor 15 ...

(Ometz, Col. 8, lines 36-59, emphasis in underline)

Ometz further recites:

It is clear that defects in the bottles made at manufacture or defects due to the presence of a marking on the bottles, which are fixed defects, produce the same light signal at the same spots precisely located on each image. A comparison of these two images therefore reveals no difference, and these defects are not retained.

On other hand, a particle circulating the liquid contained in one of the controlled bottles is reliably detected, due to the differences in light signals created by this particle and presented by each successive image.

(Ometz, Col. 9, lines 6-16, emphasis placed in underline)

Since a fixed defect on the bottle is located at the precisely identical location on both images, the bottle must inherently be in the same rotational position in both the first and second image in order for the spot to appear on the same location in both images. Otherwise, the spot corresponding to the bottle defect in one image would appear shifted in relation to the other image.

Thus, Examiner asserts that Ometz discloses "the packaging ... situated in substantially the same rotational position relative to the recording device during successive recordings of the series" as recited in Claim 1, and therefore, Claim 1 is properly anticipated under 35 U.S.C. §

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102(b) by Ometz.

Rejection of Claim 1 under 35 U.S.C. § 102(b) by Manique

Regarding the rejection of Claim 1 by Manique, Applicant argues that "Manique neither teaches nor suggests taking a substantive recording of the bottle with the bottle being in the same rotational position while spinning." (Applicant's 4/29/2008 response at 9). Examiner asserts that Manique recites:

For stationary images, or container inspection, rates of angular rotation and scanning rates of the detection apparatus are chosen such that line scans are provided at relatively low rates and such that each individual segment of the container may be scanned once or several times through successive revolutions to provide several unfolded images.

(Manique, Col. 4, lines 23-28, emphasis in underline)

Thus, Examiner asserts that Manique discloses "the packaging ... situated in substantially the same rotational position relative to the recording device during successive recordings of the series" as recited in Claim 1, and therefore, Claim 1 is properly anticipated under 35 U.S.C. § 102(b) by Manique.

Claims 3-9 and 11-14

The remaining claims are also properly either anticipated or made obvious under 35 U.S.C. §§ 102, 103 for similar reasons.

Conclusion

10. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to STEPHEN YAM whose telephone number is (571)272-2449. The examiner can normally be reached on Monday-Friday 8:30am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Georgia Epps can be reached on (571)272-2328. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR

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system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Stephen Yam/
Examiner, Art Unit 2878

/Thanh X Luu/
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